

**SYSTEM AND METHOD OF DETERMINING A USER-DEFINED
REGION-OF-INTEREST OF AN IMAGING SUBJECT FOR X-RAY FLUX
CONTROL**

5 **ABSTRACT**

 A system and method of diagnostic imaging is provided that includes positioning
a subject in an imaging device, performing at least one scout scan, and marking a user-
defined region-of-interest. An attenuation characteristic of an attenuation filter is then
automatically adjusted based on the user-defined region-of-interest. The present
10 invention automatically selects a proper attenuation filter configuration, corrects patient
centering, and corrects noise prediction errors, thereby increasing dose efficiency and
tube output.